

* | 40,7 kW / 54,6 Hp at 2.000 rpm

▲ | 8.330 kg

▮ | 4.180 - 4.675 mm



DX80R | Compact Equipment



DOOSAN DX80R hydraulic excavator: a new model with novel features



The new DX80R hydraulic excavator offers additional value to the operator.

The new DX80R was developed with the concept of “providing optimum value to the end user”.

In concrete terms, this translates into :

- **Increased production and improved fuel economy** achieved with the electronic optimization of the hydraulic system and the new generation engine.
- **Improved ergonomics**, increased comfort and excellent all round visibility ensuring a safe and pleasant working environment.
- **Improved reliability**, using high performance materials combined with new methods of structural stress analysis, have lead to increased component life expectancy, thus reducing running costs.
- **Reduced maintenance** increases the availability and lowers the operating costs of the excavator.



Technical specifications



* Engine

• Model	Yanmar 4TNV98-ZWDB8
• Number of cylinders / Piston displacement	4 / 3.319 cc
• Nominal flywheel power	40,7 kW (54,6 Hp) at 2.000 rpm (SAE J 1349, net) 40,7 kW (55,3 Ps) at 2.000 rpm (Din 6271)
• Max torque	22,74 ~24,76 kgf.m / 1.300 rpm
• Bore & stroke	98 mm x 110 mm
• Alternator	12 V / 60 Ah

* Operator's cab

• Noise Levels (dynamic value)	
LWA External noise	Guaranteed Sound Power Level 98 dB (A) (2000/14/EC)
LpA Operator noise	77 dB (A) (ISO 6396)

* Hydraulic system

• Main pumps	Variable displacement axial piston pump Max flow: 1 x 144 l/min
• Pilot pump	Gear pump - max flow: 22 l/min
• Maximum system pressure	Boom/Arm/Bucket: 300 kgf/cm ² (294 bar) Travel: 280 kgf/cm ² (275 bar) Swing: 220 kgf/cm ² (215 bar)

* Buckets

Capacity (m ³)		Width (mm)		Weight (Kg)	Recommendation	
PCSA heaped	CECE heaped	Without side cutters	With side cutters		3.380 mm Boom 1.700 mm Arm	2.250 mm Arm
0,28 m ³	0,24 m ³	707 mm	812 mm	232 kg	B	B
0,20 m ³	0,18 m ³	540 mm	646 mm	209 kg	A	A

A. Suitable for materials with a density less than or equal to 2,000 kg/m³
B. Suitable for materials with a density less than or equal to 1,600 kg/m³

* Swing mechanism

Swing parking brake is spring-set, hydraulic-released disc type.	
• Swing speed	9,6 rpm
• Rear swing radius	1.298 mm
• Left / Right Swing angle	70° / 55°

* Drive

• Travel speed (high/low)	4,6 / 2,9 km/h
• Traction force	3.600/6.200 kgf
• Maximum grade	30° / 58 %

* Weight

Boom 3.380 mm • Arm 1.700 mm • Bucket SAE 0,28 m³ • Shoe 450 mm

Shoe	Operating weight	Ground pressure
Rubber	8.330 kg	0,39 kgf/cm ²
Steel	8.380 kg	0,39 kgf/cm ²

* Undercarriage

Hydraulic track adjusters with shock-absorbing recoil springs.

Lower rollers (per side)	5
Track shoes	Rubber/steel
Shoe width	450 mm

* Refill capacities

Fuel tank	115 l
Cooling system (radiator capacity)	10 l
Engine oil	11,6 l
Hydraulic system	127 l
Hydraulic tank	73 l
Final drive	1,4 l

Performance

DX8oR ensures best performance with a powerful excavating force and a high-tech hydraulic system for better operating efficiency at any work site! Excellent performance is its basic feature! Overall safety and convenience are also key factors when considering excellent performance.



Boom swing: The newly designed swing bracket and the boom swing cylinder size ensures powerful and stable performance.



RPM dial / Auto idle: Thanks to the electronic control, the optimal engine rpm can be set per workload. The auto idle function applied as standard saves fuel considerably.



Main control valve: The machine can be precisely controlled in single and complex operation. As the circuit that ensures the optimal front operation is adopted, the boom holding function prevents the boom from self lowering.



Higher greadability and work capability: Thanks to the strong driving force based on high performance engine power and the highest swing limit angle in the same class, the DX8oR shows distinguished capability in working on the slope.

Comfort

This standard-duty machine, offers a spacious operating area that is only found in medium and heavy-duty machines. The working controls in the cabin are ergonomically designed to ensure convenience and comfort for the operator.



Fixed-Type Instrument Panel



Adjustable seat, head rest and arm rests

Enlarged entrance & exit: Accessibility is improved & the front workspace is maximized

Comfortable operating area: The operating controls, the air conditioning system & the wide field of view provide the best working conditions



Hydraulic joystick

Maintenance

The most advanced technology developed by Doosan was integrated into the DX80R excavator for powerful performance, simple and easy maintenance. This provides the operator with convenient maintenance check points and maximizes the work efficiency of the DX80R.

The reliability of a machine reduces the overall lifetime operating costs. Doosan uses finite element and 3-dimensional computer simulation.



Easy maintenance: Access to the various parts of the engine is from the side.



Engine mounting rubber



Tilting cabin for easy maintenance



Grease piping: Integrated for easy maintenance of the swing bearing and cylinder.

Standard and optional equipment

* Standard equipment

• Hydraulic system

- Arm flow regeneration
- Spare ports (valve)
- Boom holding valves

• Cab & interior

- Cab mounted on viscous support
- Air-conditioner
- Aircon filter
- Adjustable suspension seat with adjustable head rest and arm rests
- Sliding front window removable in two parts
- Room light
- Intermittent windshield wiper
- Storage box
- Engine speed (RPM) control dial
- Loudspeakers and connections for radio
- Remote radio control on console
- 12 V power outlet
- PC interface port for Diagnostics
- Hydraulic control levers with 3 switches
- Antenna

• Safety

- Large handrail
- Seatbelt
- Hydraulic safety lock lever
- Safety glass windows
- Hammer for emergency escape
- Emergency engine stop (switch)
- Accumulator

• Undercarriage

- Hydraulic track tension adjuster
- Shoes (450 mm)
- Track guards
- Dozer blade (2.300 mm)

• Others

- Double element air cleaner
- Fuel pre-filter
- Engine overheat prevention system
- Engine restart prevention system
- Self-diagnostic system
- Alternator 12 V, 60 A
- Horn
- Halogen working lights - Boom mounted 2
- Auto idle
- Fuel tank filling pump

* Optional equipment

• Cab & interior

- Seat heater
- Radio/CD
- Radio/CD/MP3
- Additional working lamp
- Sun visor

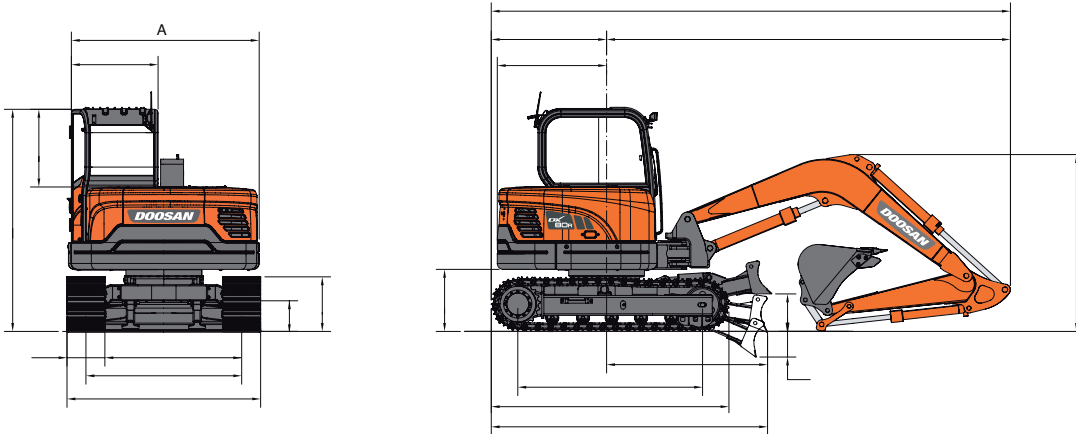
• Safety

- Boom safety valves
- Arm safety valves
- Dozer safety valves
- Overload warning device
- Travel alarm
- Rotating beacon
- Left review mirror

• Others

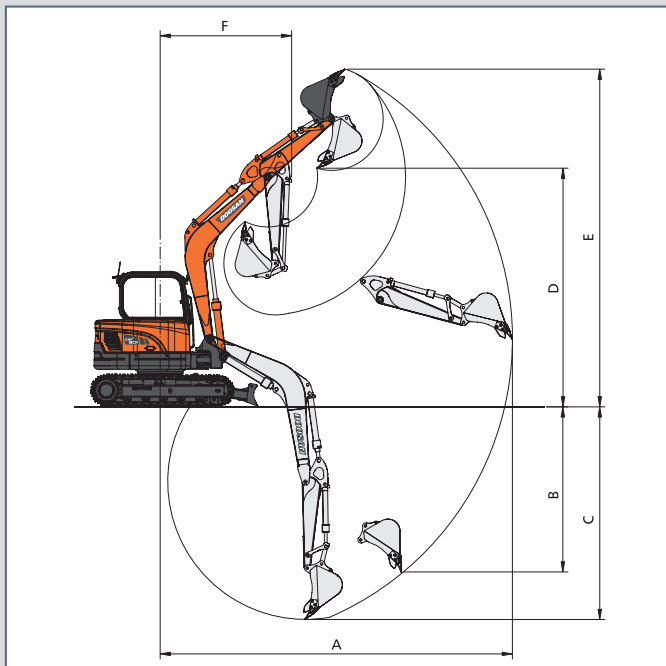
- Hydraulic piping for crusher
- Hydraulic piping for tilting and rotating
- Hydraulic piping for quick coupler
- Rubber track

Dimensions and working ranges



* Dimensions

Boom		3.380 mm
A. Overall width of upper structure		2.266 mm
B. Cabin width		1.030 mm
D. Overall height		2.638 mm
E. Track shoe width		450 mm
F. Track gauge		1.850 mm
G. Overall track width		2.300 mm
H. Ground clearance		362 mm
I. Track height		648 mm
J. Overall length	1,7 m (std)	6.167 mm
	2,25 m	6.265 mm
M. Tail swing radius		1.298 mm
N. Clearance under counterweight		737 mm
P. Tumbler distance		2.200 mm
Q. Track length		2.823 mm
R. Track to dozer length		3.282 mm
S. Dozer up		446 mm
T. Dozer down		304 mm
U. Boom transport height	1,7 m (std)	2.085 mm
	2,25 m	2.410 mm



* Digging force (ISO)

Bucket (PCSA)	0,28 m³	0,20 m³
Digging force	5.600 kgf 54,9 kN	5.600 kgf 54,9 kN
Arm	1.700 mm	2.250 mm
Digging force	4.200 kgf 41,2 kN	3.500 kgf 34,4 kN

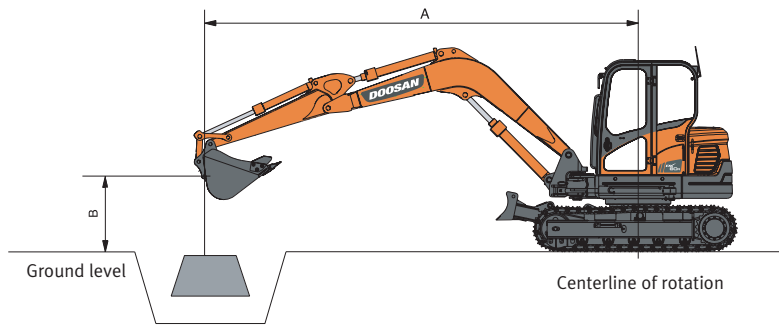
At power boost (ISO)



* Working range

Boom	3.380 mm	
Arm	1.700 mm	2.250 mm
Bucket type (SAE)	0,28 m³	0,20 m³
A Max. digging reach	6.965 mm	7.480 mm
B Max. vertical wall depth	3.220 mm	3.730 mm
C Max. digging depth	4.150 mm	4.675 mm
D Max. loading height	4.720 mm	5.085 mm
E Max. digging height	6.715 mm	7.070 mm
F Min. swing radius	2.500 mm	2.700 mm

Lifting capacity



DX 80R

STANDARD — DOZER UP— Boom: 3.380 mm - Arm: 1.700 mm - Bucket: SAE 0,28 m³ (CECE 0,24 m³) - Shoe: 450 mm

Units: 1.000 kg

B (m)	A (m)		3		4		5		Max. Reach		A(m)
	Over front	Over side or 360°	Over front	Over side or 360°	Over front	Over side or 360°	Over front	Over side or 360°	Over front	Over side or 360°	
5				*1,71		1,66			1,65	1,44	4,29
4				1,67		*1,67		1,24	1,17	1,03	5,13
3	*2,48	*2,48		1,85		1,62		1,23	1,08	0,85	5,62
2	2,84	2,42		1,75		1,53		1,19	1,04	0,77	5,86
1	2,61	2,21		1,65		1,43		1,15	1,00	0,85	5,89
o (ground)	2,56	2,16		1,59		1,37		1,11	0,97	0,77	5,72
-1	2,56	2,16		1,58		1,36		1,10	0,96	0,87	5,31
-2	2,61	2,21		1,60		1,38			1,29	1,12	4,61
-3	*1,70	*1,70							*1,36	*1,36	3,34

OPTIONAL — DOZER UP— Boom: 3.380 mm - Arm: 2.250 mm - Bucket: SAE 0,28 m³ (CECE 0,24 m³) - Shoe: 450 mm

Units: 1.000 kg

B (m)	A (m)		3		4		5		6		Max. Reach		A(m)
	Over front	Over side or 360°	Over front	Over side or 360°	Over front	Over side or 360°	Over front	Over side or 360°	Over front	Over side or 360°	Over front	Over side or 360°	
5							1,24	1,09			1,23	1,08	5,02
4							1,27	1,11			0,94	0,82	5,73
3				*1,58		*1,58	1,24	1,09	0,85	0,74	0,80	0,69	6,17
2	*2,93	2,52		1,77		1,54	1,19	1,04	0,83	0,72	0,73	0,63	6,38
1	2,66	2,25		1,65		1,43	1,13	0,98	0,81	0,70	0,70	0,61	6,41
o (ground)	2,52	2,12		1,56		1,34	1,08	0,93	0,78	0,67	0,73	0,62	6,26
-1	2,48	2,09		1,52		1,30	1,05	0,91			0,80	0,69	5,90
-2	2,51	2,11		1,53		1,31	1,06	0,92			0,98	0,84	5,28
-3	2,59	2,18		1,58		1,36					1,43	1,23	4,27



1. The nominal forces are based on the SAE J1097 standard.
2. The load point is the hook at the rear of the bucket.
3. * = The nominal loads are based on hydraulic capacity.
4. The nominal loads do not exceed 87% of the hydraulic capacity or 75% of the capacity of the swing.

Over front
Over side or 360°



Doosan Infracore
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